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Introduction

When the Conservatives came to office in September 1984, the federal government was in the process of running up a record-high $38.5 billion budgetary deficit that amounted to 8.7 per cent of GDP. The new government clearly had little choice but to make deficit reduction a priority. Deficit reduction also made economic sense as the best way to get interest rates down and foster a sustained recovery. The need to cut the deficit has thus understandably been the compelling consideration behind all of the government's tax and spending decisions. That the budgetary deficit was still estimated to be $31.4 billion or 4.6 per cent of GDP in the latest 1991-92 fiscal year testifies dramatically to the great difficulty of getting the deficit down once it has been allowed to soar.

The government has had to rely on both tax increases and expenditure restraint to try to bring the deficit into line. The spending controls have been tight and significant cuts have been made, but, more importantly from the point of view of this paper, the tax increases since 1984 have been of unprecedented magnitude. Their brunt has fallen heavily on Canadian households.

From 1984 to 1991, taxes on the household sector (defined to include taxes on individuals, social security contributions and indirect taxes) rose from 27.9 per cent of GDP to 34.6 per cent of GDP — an increase of 6.7 per cent of GDP. During the same period taxes on the household sector in the United States only increased from 26.1 per cent of GDP to 27.4 per cent. The increase in the tax burden in Canada was by far the largest among the G-7 countries surpassing even that in Italy, a country plagued by a government deficit relatively more than twice as large as in Canada.[1]

Given the magnitude of the tax increases and other structural changes in taxation, it is important that the increased tax burden be shared fairly. An informed public debate on this most fundamental of democratic issues requires up-to-date publicly available information on the distributional impact of federal tax and transfer changes. This is an information gap that this paper is intended to fill by updating for 1992 my earlier analysis for 1990 and 1991.[2] The tool used to perform this analysis is, once again, Statistics Canada's Social Policy Simulation Database and Model (SPSD/M Version 4.21).[3]

The Approach

The distributional impact of the federal tax and transfer changes are analyzed by comparing federal tax revenues under the 1992 tax structure with the structure of federal tax revenues that would have been generated if the 1984 tax and transfer legislation had remained in effect through 1992 with full indexation of most exemptions and deductions, and rate brackets.[4] This approach provides an estimate of the impact of the tax changes resulting from decisions of the Conservative government after 1984. As a general rule, if a tax change were announced by the previous Liberal government and was scheduled to take effect after 1984, it is not counted as a Conservative tax change even though it occurred after 1984.

The analysis fully reflects all of the federal tax and transfer changes directly affecting the household sector introduced in the eight budgets brought down between 1985 and

1992 budgets as well as in the 1988 tax reform and the introduction of the GST in 1991. Important measures incorporated include:

- the partial de-indexation of exemptions and brackets (limiting indexation to the increase in the consumer price index in excess of 3 per cent);
- the simplification of the structure of tax brackets from ten to three (17 per cent, 26 per cent, and 29 per cent);
- the substitution of credits for exemptions;
- the new treatment of capital gains and dividends;
- the individual income tax surtaxes;
- the introduction and enrichment of the sales tax credit;
- the limitation on the indexation of family allowances to the increase in the consumer price index in excess of 3 per cent;
- the recapture of family allowances and OAS benefits for those earning over $50,000;
- the enrichment of the child tax credit;
- the increase in the Unemployment Insurance contribution rate from 2.30 per cent to 3 per cent; and the increase in C/QPP contributions.

The limitation on the indexation of family allowances was included because it can be viewed as part of the tax and transfer system with respect to child benefits. The increases in the UI and C/QPP contribution rates were included because of the general and mandatory nature of the coverage of these programs which extend to all employees and makes them equivalent to a tax. On the other hand, the reductions in UI benefits introduced in 1990 were not included because they only affect a small proportion of the population.[5]

The analysis also incorporates the increases in commodity taxes, including most importantly the replacement of the federal Manufacturers' Sales Tax with the Goods and Services Tax. It does not, however, take into account the benefits to consumers that accrue from the elimination of the federal Sales Tax on business capital purchases. For excise taxes, it includes most notably: increases of 6 cents per litre in gasoline and aviation fuel; increases in excise taxes on leaded gasoline; and increases in excises on alcohol and tobacco. It also incorporates the elimination of the remaining energy taxes left over from the National Energy Program and the reduction in customs duties resulting from the implementation of the Canada-U.S. Free Trade Agreement.[6]

Any changes in provincial tax revenues resulting from federal tax and transfer changes are not considered because the purpose of the exercise is to quantify the direct distributional impact of the tax and transfer changes made by the Conservative government. In SPSD/M this was accomplished by using changes in federal taxes less transfers as the key analysis variable.

The analysis uses the 1986 database of individuals, families, income, spending patterns and taxes. All nominal values in the database were scaled up to reflect their estimated growth between 1986 and the 1992 reference year. The analysis uses the actual consumer price index inflation of 5.8 per cent over the twelve months ending September 1991 to calculate the indexation factor to be applied to increase brackets and credits in 1992. The indexation factor for the 1984 system in 1992 of 42.8 per cent is calculated using the percentage increase in the consumer price index over the appropriate 1982-83 base period. The indexation factor applied to the 1991 tax form to estimate the 1992 parameters is 2.8 per cent and is calculated using the percentage increase in the consumer price index minus 3 per cent.

The Results

The total revenue in 1992 raised by the federal tax and transfer changes directly affecting the household sector introduced by the Conservative government since 1984 is $21.8 billion (Table 1). This includes only those measures that impact directly on the household sector. These are the measures that are analyzed here using the SPSD/M.

The increase in net federal income tax at $2.2 billion makes up only a small part of the total. Individual surtaxes at $3.9 billion and the increase in commodity taxes at $13.0 billion are by far the most important contributors to the increased net tax burden of the personal sector. The sales tax credit costing $2.2 billion and an enrichment of the child tax credit costing over $500 million are the most important single measures offsetting the increase in federal taxes net of transfers.

The cumulative distributional impact of these changes in federal taxes less transfers paid by Canadian families, broken down by income group and census family type, is given in tables 2 to 6.[7]

Average Canadian Family

The additional tax burden in 1992 borne by an average Canadian family will be $1,894 (Table 2). The average Canadian census family has 2.3 members and is projected to have a total income of $50,739 in 1992. This burden is the combined impact of a $195 increase in net federal income tax, $343 in federal surtaxes, a $35 dollar reduction in family allowances, a $112 recapture of family allowances and old age security pensions, a $174 increase in UI contributions, a $140 increase in C/QPP contributions, and a $1,134 increase in federal commodity taxes, offset by $192 for the federal sales tax credit, and a $45 increase in the child tax credit.

Of the 11.5 million census families in Canada, 10.5 million (or over 90 percent) will see an increase in federal taxes net of transfers as a result of tax changes introduced by the Conservative government. Some 911 thousand (or 8 percent) will see their federal taxes net of transfers decline (Table 3).

Low-income Families

The 911 thousand beneficiaries of Conservative tax changes are concentrated in the low end of the income scale; of these, 732 thousand or 80 per cent have income less than $25,000 (Table 3). The net benefits from tax changes for low income earners reflect the income tax changes introduced as part of tax reform, the sales tax credit and the enrichment of the refundable child tax credit.

There are 2.8 million census families earning $25,000 or less that will experience an increase in federal taxes net of transfers as a consequence of the tax changes. Almost 1.3 million census families will have an increase in federal taxes net of transfers though their incomes are less than $15,000 annually (Table 3).

The average increase in federal taxes net of transfers will be $188 for families earning between $10,000 and $15,000, $419 between $15,000 and $20,000, and $615 between $20,000 and $25,000. Even families earning

Table 1 The Net Impact on Total Personal Taxes in 1992 of Federal Tax and Transfer Changes Since 1984
(Million of Dollars)

Increase in Net Federal Income Tax	2,240
Federal Individual Surtaxes	3,943
Federal Sales Tax Credit (-)	-2,203
Decrease in Family Allowances	397
Recapture of FA and OAS	1,283
Increase in Child Tax Credit (-)	-518
Increase in UI Contributions	1,996
Increase in C/QPP Contributions	1,604
Increase in Federal Commodity Taxes	13,027
Total Increase in Federal Taxes less Transfers	21,755

Note: A positive sign indicates that families pay more money to the government and a negative sign that they either receive money or pay less. The items shown on this table do not constitute an exhaustive breakdown of the increase in federal taxes less transfers so they do not add up exactly to the total.

less than $10,000 will on average experience a $70 increase in federal taxes net of transfers (Table 3).

Upper Income Families

Of those earning more than $100,000, 942 thousand or 92 per cent will have higher federal taxes net of transfers as a result of the tax changes and only 85 thousand or about 8 per cent would have lower taxes. Those upper income families earning between $100,000 and $150,000 will have their taxes increased by $4,425, but those earning over $150,000 will only have their taxes increased by $3,782 (Table 3).[8]

Progressivity of the Tax Changes

Measuring the degree of progressivity by taking the change in federal taxes net of transfers as a percentage of consumable income (income including transfers after direct and commodity taxes), the tax changes are very progressive in the aggregate for families earning less than $35,000 per year, become roughly proportional in the vicinity of 6 1/2 to 6 3/4 per cent of consumable income for families earning between $40,000 and $75,000, and then become regressive declining to 3 per cent of consumable income for families earning more than $150,000 (Table 3). The regressivity at the

Table 2 The Impact By Total Income Group In 1992 Of Federal Tax And Transfer Changes Since 1984
(Dollars)

Total income Group	Increase in Net Federal Income Tax	Federal Individual Surtaxes	Federal Sales Tax Credit (-)	Decrease in Family Allow.	Recapture of FA and OAS	Increase in Child Tax Credit (-)	Increase in UI Contributions	Increase in C/QPP Contributions	Increase in Fed. Commodity Taxes	Increase in Federal Taxes less Transfers
10,000 and under	18	2	-244	8	0	-26	10	6	295	70
10,001-15,000	59	8	-316	8	0	-26	13	10	431	188
15,001-20,000	129	31	-382	20	0	-63	36	28	616	419
20,001-25,000	158	57	-386	18	0	-59	57	49	719	615
25,001-30,000	148	91	-360	24	0	-78	94	82	819	822
30,001-35,000	182	122	-241	32	0	-84	129	110	965	1,213
35,001-40,000	288	165	-133	38	0	-80	161	133	1,046	1,616
40,001-45,000	373	209	-88	37	0	-60	189	149	1,148	1,953
45,001-50,000	454	252	-68	46	0	-71	209	168	1,247	2,235
50,001-60,000	490	311	-67	51	23	-60	237	185	1,365	2,531
60,001-75,000	548	410	-71	55	158	-30	284	220	1,543	3,115
75,001-100,000	527	594	-90	52	308	-10	333	260	1,754	3,725
100,001-150,000	184	994	-115	47	570	-6	374	302	2,080	4,425
Over 150,000	-3,366	3,394	-124	38	907	-3	323	313	2,304	3,782
All	195	343	-192	35	112	-45	174	140	1,134	1,894

Note: A positive amount indicates that families pay more money to the government and a negative amount that they either receive money or pay less.

highest income levels reflects the reduction in the top marginal income tax rates and the $100,000 lifetime capital gains exemption, which are manifested in the large decrease in net federal income tax at high income levels. If it were not for the increases in the surtax in budgets before 1992, the highest income earners would have actually experienced only a slight increase in federal taxes net of transfers (Table 2).

Impact by Family Type

The tax increases are largest for two adult families with children. For an average two adult family with two children earning $68,375, the additional tax burden will be $2,945 (Table 4).

Census families composed of single adults with children and earning $27,903 on average will experience an increase of $841. Families of two or more adults without children and earning $71,206 on average will experience an increase in taxes of $2,557 (Table 4).

Elderly taxpayers (i.e., those 65 years of age and over) have experienced lower tax increases than other groups. Of the 2.5 million elderly household taxpayers, 310 thousand or only 12 per cent will in 1992 experience a reduction in their federal taxes net of transfers, and 2.1 million or 86 per cent will experience an increase (Table 4). An average elderly family with one adult and earning $22,780 will pay $607 more tax and an average elderly family with two or more adults earning $51,316 will pay $1,592 more tax (Table 4).

Table 3 The Net Impact by Total Income Group in 1992 of Federal Tax and Transfer Changes Since 1984

Total income Group	Change in Federal Taxes less Transfers	Increase as % of Consumable Income[a]	Families (000)	Average Family Size	Losers[b] (000)	Gainers[b] (000)
10,000 and under	70	-1.9	676	1.2	369	275
10,001-15,000	188	1.8	1,263	1.2	906	316
15,001-20,000	419	3.4	847	1.7	739	97
20,001-25,000	615	3.7	818	1.8	771	44
25,001-30,000	822	4.3	719	1.9	696	22
30,001-35,000	1,213	5.2	681	2.2	670	11
35,001-40,000	1,616	6.0	647	2.4	640	6
40,001-45,000	1,953	6.5	650	2.4	647	4
45,001-50,000	2,235	6.7	606	2.6	600	6
50,001-60,000	2,531	6.6	1,102	2.8	1,089	13
60,001-75,000	3,115	6.8	1,218	3.0	1,208	10
75,001-100,000	3,725	6.4	1,231	3.1	1,207	23
100,001-150,000	4,425	5.7	728	3.1	695	33
Over 150,000	3,782	3.0	300	3.2	247	52
All	1,894	4.7	11,487	2.3	10,482	911

a Consumable income is defined as income including all government transfer payments and after direct and commodity taxes.

b A loser is defined to be anyone who experiences an increase in federal taxes less transfers that is greater than $10; a gainer experiences a reduction greater than $10.

An examination of the changes in federal taxes net of transfers broken down by household type and total income group reveals that at the very low income levels ($15,000 and below) single parent families with children will actually benefit from lower levels of federal taxes net of transfers as a result of the enrichment of the child tax credit and the conversion of exemptions into credits (Table 5). At middle income levels and above ($40,000 to $100,000), families with children will experience higher than average increases in federal taxes net of transfers.

In general, elderly households experience larger reductions or smaller increases in federal taxes net of transfers than other childless families up to an income level of $60,000. Above $60,000 for single elderly and $100,0000 for couples, elderly families will experience significantly greater increases in federal taxes net of transfers because of the recapture of the old age security pension and the higher proportion of relatively harder-hit investment income.

The percentage of the group broken down by household type and income that will have increases in federal taxes net of transfers as a result of measures introduced by the Conservative government since 1984 quantifies the distribution of the losers from Conservative tax changes (Table 6). It is clear that the groups that will have the fewest losers are low income families with children, particularly single parent families, and elderly in the lowest income category. The highest income families will also have a smaller proportion of losers.

Conclusions

The Conservative government has introduced major changes in the tax and transfer system since coming to office in 1984. These changes have substantially increased the tax burden on the household sector by almost $22 billion, raising the net taxes paid by an average Canadian family by almost $1,900. This increase is largely the result of increases in federal commodity taxes and income sur-

Table 4 The Net Impact by Family Type in 1992 of Federal tax and Transfer Changes Since 1984

Census family type	Change in Federal Taxes less Transfers	Increase as % of Consumable Income[a]	Families (000)	Average Family Size	Losers[b] (000)	Gainers[b] (000)
With Kids, 1 Adult	841	2.1	465	2.5	327	130
With Kids, 2 or more Adults	2,945	6.6	3,143	4.0	3,013	125
With Elderly, 1 Adult	607	1.8	1,363	1.0	1,093	233
With Elderly, 2 or more Adults	1,592	3.5	1,127	2.2	1,042	77
Other, 1 Adult	1,046	4.3	2,841	1.0	2,554	255
Other, 2 or more Adults	2,557	5.5	2,548	2.4	2,453	91
All	1,894	4.7	11,487	2.3	10,482	911

a Consumable income is defined as income including all government transfer payments and after direct and commodity taxes.

b A loser is defined to be anyone who experiences an increase in federal taxes less transfers that is greater than $10; a gainer experiences a reduction greater than $10.

Note: Kids are children aged under 18 and elderly are persons aged 65 and over. In the classification of census family types, the presence of kids takes precedence over elderly.

taxes. The 1988 reform of the personal income tax mainly redistributed the tax burden rather than increasing it.

The tax changes have been very progressive in the aggregate for families with income less than $35,000 per year, roughly proportional in the $35,000 to $75,000 range, moderately regressive in the $75,000 to $150,000 range, and very regressive over $150,000.[9]

Middle income families, particularly those with children, have borne the brunt of the tax increase since 1984. High income families have faced less than proportionate tax increases, and the lowest income families with children have even enjoyed tax cuts or transfer increases.

In my view, these results suggest some deterioration in the equity of the tax system under the Conservatives. Specifically, the progressivity of the personal income tax has been reduced with the reduction in top marginal rates, and tax rates have been increased sharply on middle income earners. The introduction of the GST will probably over time shift the tax mix towards regressive commodity taxes and away from income taxes. The sales tax credit will offset the regressivity of the GST initially. But with the indexation of the credit and the threshold limited to the increase in the CPI in excess of 3 per cent, the increase in the sales tax credit for the GST would be almost entirely consumed by inflation by the end of the decade leaving low income families with no real in-

Table 5 The Net Impact in 1992 of Tax and Transfer Changes Since 1984 Expressed as a Percentage of Consumable Income by Census Family Type

Total income Group	With Kids, 1 Adult	With Kids, 2+ Adults	With Elderly 1 Adult	With Elderly 2+ Adults	Other, 1 Adult	Other 2+ Adults	All
10,000 and under	-7.9	-7.4	-8.9	-4.5	-0.3	1.3	-1.9
10,001-15,000	-0.3	-1.0	1.2	1.8	3.7	1.9	1.8
15,001-20,000	0.6	5.6	3.1	1.2	4.7	3.6	3.4
20,001-25,000	2.1	3.6	2.8	2.3	5.1	4.5	3.7
25,001-30,000	3.2	5.1	2.5	2.9	5.0	4.7	4.3
30,001-35,000	4.4	5.0	3.4	3.9	6.1	5.6	5.2
35,001-40,000	5.8	6.4	4.3	4.2	6.3	6.4	6.0
40,001-45,000	7.5	7.0	4.5	4.1	7.0	6.6	6.5
45,001-50,000	7.7	7.7	4.4	4.5	6.5	6.6	6.7
50,001-60,000	7.5	7.5	4.4	4.7	6.4	6.4	6.6
60,001-75,000	7.7	7.6	6.4	4.8	6.0	6.3	6.8
75,001-100,000	8.0	7.3	8.7	5.3	4.7	5.7	6.4
100,001-150,000	4.4	6.3	6.8	5.9	3.2	5.3	5.7
Over 150,000	-1.6	2.8	4.6	3.9	-0.1	3.0	3.0
All	2.1	6.6	1.8	3.5	4.3	5.5	4.7

Note: A positive amount indicates that families pay more money to the government and a negative amount that they either receive money or pay less. Consumable income is income after direct and indirect taxes and transfers.

creases in the credit and facing sharply higher sales taxes.

On the other hand, it must be admitted that the reduction in the top marginal rates and sales tax reform are important steps to foster economic efficiency. The Conservative government has clearly been forced to make some hard choices between equity and efficiency. Whether this trade-off is appropriate is a judgment call that depends on the relative weight attached to these two important objectives of tax policy.

Returning to the issue of the magnitude of the tax increases, the $1,900 increase in the average tax burden on Canadian families in 1992 is greater than the $1,530 estimated for 1991 in my earlier study, which in turn was greater than my estimate of $999 for 1990. And this is in spite of the inclusions of tax reductions in the 1992 budget. While the 1992 budget reduced the surtax by 1 per cent as of July 1, 1992, there were large increases in Unemployment Insurance contributions, the continued limitation on indexing, and the growing impact of commodity tax increases. So in 1992, despite the optics of a well-received tax-cutting budget, the tax burden continued its steady climb upward under the Conservatives.

While tax increases will likely be on hold until after the next federal election, the likely persistence of an almost $30 billion federal deficit in 1992-93 and the strengthening of spending pressures do not offer much hope for the heavily burdened Canadian taxpayer

Table 6 Losers in 1992 as a Result of Federal Tax and Transfer Changes Since 1984 by Census family type

(Percentage of total in Category)

Total income Group	With Kids, 1 Adult	With Kids, 2+ Adults	With Elderly 1 Adult	With Elderly 2+ Adults	Other, 1 Adult	Other 2+ Adults	All
10,000 and under	19.7	29.2	57.5	34.6	57.7	60.2	54.5
10,001-15,000	36.6	42.3	68.7	55.6	89.8	69.9	71.7
15,001-20,000	57.9	70.4	98.6	78.3	97.8	87.9	87.2
20,001-25,000	76.0	84.6	97.4	92.5	99.7	95.9	94.2
25,001-30,000	94.1	91.1	95.9	97.4	99.5	97.1	96.8
30,001-35,000	98.5	96.4	96.9	99.5	99.7	98.1	98.3
35,001-40,000	99.2	98.6	96.7	99.8	99.3	99.4	99.0
40,001-45,000	100.0	99.7	96.2	99.3	99.4	99.7	99.4
45,001-50,000	97.7	99.8	93.7	98.8	98.3	99.4	99.0
50,001-60,000	100.0	99.6	89.7	99.1	96.9	99.7	98.8
60,001-75,000	96.7	99.6	96.3	98.3	97.2	99.5	99.1
75,001-100,000	96.9	99.1	95.5	96.2	92.6	98.1	98.0
100,001-150,000	72.3	96.3	99.9	93.5	88.0	95.9	95.5
Over150,000	52.0	80.1	80.2	87.1	54.3	85.8	82.5
All	70.5	95.9	80.2	92.4	89.9	96.3	91.3

Note: A loser is defined to be anyone who experiences an increase in federal taxes less transfers that is greater than $10.

regardless of which party forms the next government. Since future tax changes introduced by governments of whatever political stripe will be conditioned by public perceptions about the fairness of tax changes and the overall tax structure, it is important that the public be provided regularly with reliable information on the distribution of the tax burden.

Notes

* Although the analysis in this article is based on Statistics Canada's Social Policy Simulation Database and Model (SPSD/M), the author alone is responsible for the assumptions made and the interpretations of the data. Thanks are due to an anonymous referee for extremely useful comments and suggestions.

1. Data from Department of Finance, *Economic Reference Tables*, August 1992, pp.145-146.

2. See Patrick Grady, "The Distributional Impact of the Federal Tax and Transfer Changes Introduced Since 1984," *Canadian Tax Journal*, Vol. 38, No.2 (March-April 1990),pp.286-297; "An Analysis of the Distributional Impact of the Goods and Services Tax," *Canadian Tax Journal*, Vol. 38, No.3 (March-April 1990),pp.632-644; and "Taking Stock of Tory Tax Reform," a paper presented to the Twenty-Fifth Annual Meeting of the Canadian Economics Association at Queen's University, Kingston, Ontario, June 2, 1991. The latter paper, which is more judgemental and eclectic in approach, provides an overall assessment of tax reform under the Conservatives and offers some views for future tax reform.

3. The SPSD/M is a computer program built around a database, covering the demographic and socio-economic characteristics of about 63 thousand Canadian families, which is taken from the Survey of Consumer Finance, the Green Book tax sample, the Family Expenditure Survey, and the Unemployment Insurance administrative file. The model's several hundred demographic and socioeconomic variables include age, province, income, expenditure, household composition, and work history. The model incorporates detailed algorithms portraying the workings of the current federal and provincial tax and transfer systems. Commodity taxes are also included based on the Input-Output model. While the SPSD/M has some deficiencies such as its coverage of the income of high income earners and its reliance on 1986 data, it is still the best, and most importantly, the only tool that is currently available outside of government for analyzing the distributional impact of changes in federal and provincial budgets and other changes in the Canadian tax and transfer system.

   A good overview of the SPSD/M by its builders is provided in Michael J. Bordt, Grant J. Cameron, Stephen F. Gribble, Brian B. Murphy, Geoff T. Rowe, and Michael C. Wolfson, "The Social Policy Simulation Database and Model: An Integrated Tool for Tax/Transfer Policy Analysis" *Canadian Tax Journal*, Vol. 38 (January-February 1990), pp.48-65.

4. This is done by running the SPSD/M twice for the 1992 tax year making alternative assumptions. In the base case, the tax and transfer parameters reflect an extrapolation of the 1984 tax and transfer system. In the variant case, the tax and transfer parameters are those that are in effect in 1992 following the February 1992 budget. The database used for running both the base case and the variant reflects the 1992 income and demographic characteristics of the population. No behavioural changes are incorporated into the analysis. Thus only the direct impact of the tax and transfer changes holding incomes constant are reflected in the analysis.

5. See Patrick Grady, "An Analysis of the Distributional Impact of the Proposed Unemployment Insurance Changes," Global Economics Ltd., Ottawa, July 6, 1989.

6. This analysis takes into account the changes in commodity taxes in a less precise manner than the changes in direct taxes for which the structure of the SPSD/M is more detailed. It does this by contrasting the solution of SPSD/M using the 1984 value of the commodity tax parameters with that using the 1992 tax parameters. An exception to this is the parameter for federal customs import duties which in 1992 is set at 54.94 per cent of the 1984 values reflecting an estimate of the impact of the Free Trade Agreement on customs import duties. To a certain extent, this approach allows roughly in the base case for the automatic indexation of excise tax and duty rates on alcoholic beverages and tobacco products that existed prior to 1985.

7. The tables provide results for census families. A census family is defined as "a head, spouse if present, and never-married children of any age sharing a dwelling." Adults are persons aged 18 or over (including elderly), and elderly are persons aged 65 or over. Kids are persons aged under 18. A census family can be made up of one or more taxpayers. In the classification of census families by type, the presence of kids takes precedence over the presence of elderly.

8. Because the data in the SPSD/M for high income earners are imputed from aggregate data and do not reflect detailed tax information about tax base composition in terms of the incomes subject to the tax or the type of deductions claimed, the results for high income earners are less reliable than results for low and middle income earners and must be considered suggestive rather than definitive.

9. Again it is important to bear in mind the qualification expressed in footnote 8 above in interpreting the degree of regressivity of the tax and transfer changes at high income levels.